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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,530	12/04/2003	Mamoru Kurokawa	566.41216VX1	5939

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EXAMINER	
ROVNAK, JOHN EDMUND	
ART UNIT	**PAPER NUMBER**
3714	

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/726,530	KUROKAWA, MAMORU	
	Examiner	Art Unit	
	John E. Rovnak	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *04 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/04/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-3 are rejected under 35 U.S.C. 102(a) as being anticipated by Brunner et al (US 2003/0100998).

Brunner discloses a behavior monitoring system and method using an infrared detector for measuring the position of small animals, while a computer controls opening of a plurality of covers for food and water, and calculating by the computer accessing times for the food and water by the animal.

From Brunner:

[0025] In certain embodiments, the subject system may be described in terms of main components, comprising a data capture system for capturing behavioral and other animal derived data, intelligent software such as computer vision algorithms, that capture and/or identify behavioral/physiological states, and a custom-built intelligent database that enables sophisticated statistical analysis of the captured states and data mining. The data capture system advantageously can be a free-standing module that either is, or fits into, a standard laboratory home cage and can be fitted with mechanical devices for conducting experiments. It may be equipped with a variety of sensors that automatically record the test subject's activity and biological changes and feed them to the computer system on a continuous real-time basis. A variety of mechanical challenges advantageously part of the systems, can be computer-controlled for conducting a range of standardized, scientifically validated tests. Physical activity can be captured by a highly sensitive movement capture system that allows for minutely detailed analysis

[0251] FIG.3 is a front view of the module 2. In this alternative example a possible disposition of the stimuli and other features is shown. A low-lux wide-angle video camera 10 can record the test subject's activity throughout the day and night. The cameras may record the test subject's activity of eating from food dispenser 16 and

drinking from water bottle 14. A scale 30 can measure body weight or simply sense the presence of the mouse on that side of the cage. One or two operanda are used to condition the animal or measure motor strength. If access to the operanda must be restricted, doors 37 and 38 similar to the food 16 and water doors 14 can be implemented. Visual stimuli can be presented on a screen 35. Additional visual stimulation is provided by a Light source 12. Infrared light for night recording is provided by infrared lamp 36. Additionally, sensors as previously described may also be used to monitor the physical and biological effects of the projection screen on the test subject.

[0255] In certain embodiments, the system includes a sub-system for detecting ambulatory and non-ambulatory movements. To illustrate, the cage can be equipped with an array of infrared sensors producing a beam pattern in the cage of high enough resolution to differentiate between ambulatory and non-ambulatory movements for both rats and mice. Status about IR beam interruptions by the animals is transferred from all sensors to the computer system. From the received information about beams interruption, the system computes the number of ambulatory and non-ambulatory animal movements as well as animal position along each sensor.

0262] Another memory test for the test animals is a holeboard test, which utilizes a rotating holeboard apparatus containing (four) open holes arranged in a 4-corner configuration in the floor of the test enclosure. A mouse is trained to poke its head into a hole and retrieve a food reward from a "baited" hole that contains a reward on every trial. There is a food reward (e.g., a Fruit Loop) in every exposed hole that is made inaccessible by being placed under a screen. The screen allows the odor of the reward to emanate from the hole, but does not allow access to the reinforcer. When an individual hole is baited, a reward is placed on top of the screen, where it is accessible. The entire apparatus rests on a turntable so that it may be rotated easily to eliminate reliance on proximal (e.g., olfactory) cues. A start tube is placed in the center of the apparatus. The subject is released from the tube and allowed to explore for the baited ("correct") hole.

[0289] In certain embodiments, the system 1510 includes instrument insert openings 1502 for positioning other instruments and probes in the cage 1602. Merely to illustrate, the sensors can include temperature sensors, nose poke sensors, a scale to measure mouse body weight, an ultrasonic microphone, telemetric sensors, and the like. Indeed, almost any commonly used laboratory sensor can be added to the subject system and integrated into a computerized data capture system. It is also contemplated that the subject system can include one or more additional actuators, such as automatic food or reward dispensers, lights and displays, speakers or other noise makers, enrichment devices (such as an instrumented running wheel), and the like.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Rovnak whose telephone number is (703) 308-3087. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica Harrison can be reached on (703) 308-2217. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John Rovnak
Primary Examiner
Art Unit 3714

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